## BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Continue Implementation and Administration of California Renewables Portfolio Standard Program.

Rulemaking 08-08-009 (Filed August 21, 2008)

# COMMENTS OF THE DIVISION OF RATEPAYER ADVOCATES ON THE PROPOSED DECISION ADOPTING THE RENEWABLE AUCTION MECHANISM

MARCELO POIRIER Attorney for the Division of Ratepayer Advocates California Public Utilities Commission 505 Van Ness Avenue San Francisco, CA 94102 Phone: (415) 703-2913

Email: mpo@cpuc.ca.gov

September 27, 2010

### **TABLE OF CONTENTS**

I.		INTRODUCTION	1
II.		DISCUSSION	2
	A.	REVENUE REQUIREMENT CAP	2
		1. The PD requires modification with regard to the treatment of contracts for projects in excess of the auction limit or at a rate at or above the SPT	2
	В.	THE COMMISSION SHOULD REDUCE THE NUMBER OF AUCTIONS IN THE INITIAL YEAR OF THE RAM PROGRAM	3
	C.	THE COMMISSION SHOULD ADOPT LESS EXPANSIVE LOCATION ELIGIBILITY REQUIREMENTS	4
	D.	. INDEPENDENT EVALUATORS SHOULD BE USED TO EVALUATE THE RAM PROGRAM	5
	E.	ONLY EXCESS SALES SHOULD BE COUNTED TOWARDS THE RAM PROGRAM'S CAPACITY LIMIT	6
	F.	THE COMMISSION SHOULD MANDATE A HIGH LEVEL OF TRANSPARENCY FOR THE RAM PROGRAM	7
III.		CONCLUSION	9
AP	PE	NDIX A 1	0, 11
CĽ	KI	FIFICATE OF SERVICE	

### BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Continue Implementation and Administration of California Renewables Portfolio Standard Program.

Rulemaking 08-08-009 (Filed August 21, 2008)

# COMMENTS OF THE DIVISION OF RATEPAYER ADVOCATES ON THE PROPOSED DECISION ADOPTING THE RENEWABLE AUCTION MECHANISM

#### I. INTRODUCTION

Pursuant to Rule 14.3 of the Commission's Rules of Practices and Procedure, the Division of Ratepayers Advocates ("DRA") hereby submits the following comments on the August 24, 2010 Proposed Decision ("PD") of Administrative Law Judge ("ALJ") Burton Mattson, adopting the renewable auction mechanism ("RAM" or "RAM program"). On September 8, 2010, ALJ Mattson granted an extension until September 27, 2010 for filing opening comments.

Overall, DRA supports the adoption of the RAM since it should spur the development of low-cost renewable projects at the distribution level in the near term and provide an effective new tool for renewable energy procurement. However, DRA recommends modifications to several elements of the proposed RAM program that will improve the effectiveness of the program and protect ratepayer interests.

Specifically, DRA recommends the Commission:

- (1) Provide more specific details regarding the treatment of contracts in excess of the auction limit or at a rate at or above the Simplified Preapproval Threshold ("SPT");
- (2) Reduce the number of auctions in the first year of the program;

- (3) Limit program eligibility to projects within a California balancing authority area;
- (4) Require that an independent evaluator is used to evaluate the RAM program;
- (5) Count only excess sales toward the RAM program's capacity limit; and
- (6) Ensure maximum transparency of the RAM program.<sup>1</sup>

#### II. DISCUSSION

#### A. Revenue Requirement Cap

The PD adopts a total capacity cap of 1000 MW and declines to adopt a revenue requirement cap.<sup>2</sup> DRA agrees with the PD that a total capacity cap will eliminate the potential complexities and uncertainties associated with the previously proposed revenue requirement concept. The total capacity cap, in conjunction with the SPT, has the capability to effectively protect ratepayers from exorbitantly priced contracts under the RAM.

In particular, DRA strongly supports the lack of the requirement in the PD that any projects priced above the SPT are subject to a must-take obligation.<sup>3</sup> This exception from the must-take provision of the RAM program is an essential safeguard to assure that ratepayers are paying for a reasonably priced RAM program.

## 1. The PD requires modification with regard to the treatment of contracts for projects in excess of the auction limit or at a rate at or above the SPT

The PD indicates that any signed contracts for projects that are "in excess of the auction limit or at a rate at or above the SPT should be submitted to the Commission under other procedures." Furthermore, the PD indicates that the capacity of either of

<sup>&</sup>lt;sup>1</sup>Pursuant to Rule 14.3(b), DRA's proposed changes to the findings of fact, conclusions of law and ordering paragraphs are attached as Appendix A.

 $<sup>{}^{2}</sup>$ PD, p. 43.

<sup>&</sup>lt;sup>3</sup>PD, 83, FN 128.

<sup>&</sup>lt;sup>4</sup>PD, p. 84.

these contract types will not count against the overall capacity cap allocated to each IOU.<sup>5</sup> DRA finds this language problematic for several reasons.

First, the current language of the PD is too ambiguous as to what procedures the IOUs should follow for contracts that are in excess of the auction limit. The PD should specify that if an IOU intends to sign a contract that is in excess of the auction limit - regardless of how the cost relates to the SPT - it should do so through an existing Commission approved renewable procurement program such as the recently approved solar photovoltaic programs, the RPS procurement process or via a bilateral contract.

Second, the PD's treatment of signed contracts with a rate at or above the SPT is cause for concern. The PD indicates that such contracts may be submitted by a Tier 3 advice letter process or an application, and that such a contract will not count against the RAM program's overall capacity cap. Although DRA does not object to the submission of such contracts via an application, DRA does have concerns that contracts submitted via the Tier 3 process will not count against the overall capacity cap since the PD does not specify a separate capacity limit for contracts approved under the Tier 3 process.

The lack of a limit for contracts in excess of the capacity cap of the RAM program or any direction specifying what Commission-approved renewable procurement program cap the contract counts against creates a dangerous loophole. As currently composed, the PD seems to place no limit on the submittal of contracts at or above the SPT. Therefore, DRA recommends that the Commission specify that any signed contract that is at or above the SPT should count against the overall 1000 MW capacity cap.

## B. The Commission should reduce the number of auctions in the initial year of the RAM program

The PD's proposed RAM program calls for two 250 MW auctions per year, with a total of four auctions over two years. The PD requires that the auctions be held

<sup>&</sup>lt;u>5</u>Id

<sup>&</sup>lt;sup>6</sup> PD, p. 84.

simultaneously by the three IOUs. DRA finds the number of auctions proposed for the first year too high at the inception of the RAM program.

In order to avoid disruptions in the development of the RAM program, DRA recommends that the program be phased-in to ensure that the program operates smoothly and avoids overreaching and necessitating a scaling back at a later date. A phased-in approach will allow the Commission to determine that the market is working properly and that costs under the RAM program are reasonable.

Therefore, DRA recommends that the RAM begin with one 200 MW auction being held during the first year. In the following two years, the number of auctions can increase from one to two auctions per year, with 200 MW available for each auction. This approach would keep the RAM at the total adopted capacity cap of 1000 MW.

### C. The Commission should adopt less expansive location eligibility requirements

With regards to the location aspect of program eligibility, the PD elects to not limit project location, but rather adopts an expansive position requiring only that the deliveries are consistent with RPS eligibility standards as determined by the CEC. The PD indicates that limiting projects to the IOU service areas or the CAISO controlled grid will restrict competition and exclude projects in locations with significant renewable potential. 10

While DRA appreciates the concerns included in the PD regarding ensuring adequate competition and including projects in productive renewable areas outside the CAISO controlled grid, the inclusion of any project that is consistent with the CEC's RPS eligibility standards is too expansive of an approach. Such an approach could result in projects located in the entire WECC participating in the program, which would undermine major benefits of the RAM program, including avoided or deferred investment

<sup>&</sup>lt;sup>7</sup> PD, p. 90.

<sup>&</sup>lt;sup>8</sup> This approach is similar to DRA's recommendation in DRA's Pricing Comments (p. 9).

<sup>&</sup>lt;sup>9</sup> PD at p. 54.

<sup>10</sup> PD at p. 55.

in transmission upgrades as well as avoided transmission line losses. DRA supports facilitating the interconnection of projects that efficiently utilize the existing distribution system. Favoring smaller projects that can interconnect at the distribution level and do not require costly distribution system upgrades or transmission construction will result in benefits to all ratepayers, as long as that generation is provided at a reasonable cost.

The RAM program should initially focus on projects that will further the primary goals of the program. Therefore, DRA recommends a change to the language of the PD regarding eligibility. Rather than limiting eligibility to projects within the CAISO controlled grid, DRA recommends requiring that eligible projects must be located in a *California balancing authority area*.

Limiting eligible projects to a location within a California balancing authority area balances the primary goals of the RAM program such as spurring the development of distribution-level renewable projects, while addressing concerns that the program design ensures sufficient competition and includes productive renewable energy areas in California. The expansion of the program to include projects in any California balancing authority area will result in a broader range of potential bidders, likely resulting in downward pressure on prices spurred by additional competition Furthermore, DRA's recommended eligibility requirement is consistent with the definition of a bundled contract in the TREC decision (D.10-03-021).

### D. Independent evaluators should be used to evaluate the RAM program

The PD states the RAM program should be evaluated annually and that it, "expects Energy Division and other parties to continually monitor the RAM, and recommend modifications based on evidence, if and as necessary." The PD also requires that the Procurement Review Group ("PRG") examine auction results to assure price and viability were properly applied." Although DRA supports these requirements, the Commission should also require additional evaluation by a third party, neutral entity.

<sup>&</sup>lt;sup>11</sup> D.10-03-021, p. 26.

<sup>&</sup>lt;sup>12</sup>PD, p. 130.

Therefore, DRA recommends that an Independent Evaluator ("IE") also evaluate the RAM programs. The IE can evaluate whether the RAM is functioning efficiently and make recommendations to improve the program if necessary. An IE closely monitors each annual Request for Offers ("RFO") process in the RPS program to ensure fairness. In a similar manner to its role with the PRG and RPS RFOs, an IE should be used to evaluate the RAM program.

### E. Only excess sales should be counted towards the RAM program's capacity limit

The PD finds that under an excess sales arrangement the entire rated capacity of a facility should be measured towards the total capacity of the RAM program rather than only the actual excess sales portion of a facility's generation. DRA has concerns with this approach because it could quickly result in an exhaustion of the RAM program's total capacity.

A significant portion of the RAM program's capacity could be tied up by essentially phantom MWs since some facilities may sell only a small portion of their overall generation through an excess sales agreement. Reducing the effective capacity of the program from the outset would seem contrary to the goals of the RAM. Although the PD acknowledges this risk, it indicates that the program's "limit may be increased, if and when appropriate." However, such an increase to the RAM program's limit could take a considerable amount of time, blunting the program's impact and reducing the effectiveness in assisting California in reaching its RPS goals.

The Commission should mandate that only the actual excess sales be counted towards the RAM program's capacity limit. Although this approach may involve more complexity, it is essential to ensure the efficacy of the RAM program. A project participating in the auction should be reasonably certain as to how many MWs it intends to sell through the RAM program, since this should be a vital part of crafting a bid that is both (1) competitive and (2) assures sufficient recovery on the investment. DRA

<sup>&</sup>lt;sup>13</sup> PD, pp. 139-141.

<sup>&</sup>lt;sup>14</sup> PD, p. 141.

supports the method recommended by IEP, which counts the difference between the nameplate capacity of the customer's generating facility and the historical peak demand. The use of such a method would assure that the RAM program's capacity is not exhausted too quickly.

### F. The Commission should mandate a high level of transparency for the RAM program

DRA agrees with the PD regarding the importance of greater public access to the RAM program data. However, the PD needs to be more specific regarding the disclosure of RAM program data. DRA supports maximum disclosure of RAM program data, consistent with D.06-06-066 ("the Confidentiality Decision"). At a minimum, the Commission should require public disclosure of price data (e.g. maximum, minimum, average, individual prices) for winning bids that execute contracts pursuant to the RAM program.

DRA agrees with the PD that "[i]nformation is vital to an effectively functioning market." Mandating extensive disclosure of data from the RAM program will support transparency so that sellers have clear expectations in terms of price and the regulatory process. The extent to which the regulatory scheme is perceived to be clear and stable can influence how much renewable power is developed and at what cost.

In D.06-06-066, the Commission adopted a procedure that relied on the use of the Matrix of Allowed Confidential Treatment Investor Owned Utility (IOU) Data ("Matrix") to identify data that should be treated as confidential. The Matrix applies to data relevant to electric procurement. The Commission's rules regarding confidentiality of electric procurement data do not prescribe confidential treatment for a considerable

<sup>&</sup>lt;sup>15</sup> PD, p. 140, *citing* IEP's initial FIT Comments at 10.

<sup>&</sup>lt;sup>16</sup> PD, p. 135.

<sup>&</sup>lt;sup>17</sup> PD, p. 136.

 $<sup>^{\</sup>underline{18}}$  D.06-06-066, as modified by D.07-05-032, p. 42.

<sup>&</sup>lt;sup>19</sup> D.06-06-066, as modified by D.07-05-032, p. 18.

portion of the RAM program data.  $\frac{20}{}$  The Matrix does not contemplate the type of information that should be confidential in an auction process, but rather in arms length negotiations. For example, the Matrix protects bid information of projects for three years after the final contracts are submitted to the Commission from that particular solicitation.  $\frac{21}{}$ 

This has allowed for the protection of bid data for an indeterminate amount of time because contracts can be submitted for approval years after a solicitation has been concluded. This is inapplicable to the RAM process, because the auction itself will result in firm contracts. Unlike in general RPS solicitations, there is no corresponding need to protect price information from other participants in the RAM, because their will be no ongoing negotiations stemming from that particular RAM auction. Similarly Matrix sections VII F. and G. protect the price terms of Bilateral, RPS contracts for three years. Conceivably, this was to protect price information from other suppliers who are negotiating contracts with the IOUs. This prevents bidders in the same solicitation from knowing what the IOU is willing to pay for RPS contracts from that particular solicitation.

In the RAM, there are no such ongoing negotiations and bidders would not gain an advantage from learning what bid prices were accepted. Price information would inform future bidders of the robustness (or lack thereof) of the previous solicitation. There is a public benefit from releasing this price information, without the negative possible outcomes for ratepayers that could stem from solicitations with ongoing negotiations. It would also be consistent with D.06-06-066 to release this price information to make the process more transparent.

The PD should be more specific with regard to the information that will be made public so that the intent of the PD is not thwarted by the vague language of the Matrix. The Commission has broad discretion to require that data from finalized contracts under

 $<sup>\</sup>frac{20}{2}$  D.06-06-066, as modified by D.07-05-032, pp. 18-19.

 $<sup>\</sup>frac{21}{2}$  D.06-06-066, as modified by D.07-05-032, Appendix 1 (IOU Matrix), Item VIII(B) (Competitive Solicitation (Bidding) Information – Electric), p. 18.

the RAM program be made publically available and should use that discretion to ensure maximum disclosure of program data.

#### III. CONCLUSION

DRA generally supports Commission approval of the PD, but recommends several modifications that will improve the effectiveness of the RAM program and protect ratepayer interests. DRA's recommended modifications include limiting the number auctions in the first year, adopting more limited location eligibility requirements, including independent evaluator review of the RAM program, counting only actual excess sales against the RAM program capacity cap and maximizing RAM program transparency. DRA recommends that the Commission adopt the PD with the modifications discussed above.

Respectfully submitted,

/s/ MARCELO POIRIER

Marcelo Poirier Staff Counsel

Attorney for the Division of Ratepayer Advocates

California Public Utilities Commission 505 Van Ness Avenue San Francisco, CA 94102 Phone: (415) 703-2913

E-mail: mpo@cpuc.ca.gov

September 27, 2010

#### APPENDIX A

### PROPOSE MODIFICATIONS TO FINDINGS OF FACT, CONCLUSIONS OF LAW AND ORDERING PARAGRAPHS<sup>1</sup>

#### **FINDINGS OF FACT**

- 14. Requiring projects participating in the RAM program to be located in a California balancing authority area deliveries on the basis of RPS eligibility standards as determined by CEC matches the same provision in the annual bid solicitation portion of the RPS program, will not cause confusion, will increase competition, and will include areas with some of the best renewable potential.
- 45. The use of project rated generating capacity (compared to rated capacity minus a measurement or an estimate of customer load) is direct, simple, and less likely to result in uncertainty or disputes about project amounts or when maximum program capacity has been reached.

#### **CONCLUSIONS OF LAW**

- 7. The following RAM program design elements should be adopted: a total program capacity cap of 1,000 MW, subject to adjustment in any appropriate proceeding; an initial capacity allocation to the three IOUs using the same proportions as in the existing FIT program; 25% 20% of the 1,000 MW total allocation offered in the initial auction; RAM is a must-take tariff for winning bids below the SPT; and only must-take contracts apply to program capacity caps.
- 9. RAM should be limited to the three largest IOUs, deliveries should be <u>limited to projects located in a California balancing authority area consistent with RPS eligibility requirements as determined by CEC</u>, and the seller should not be required to be a retail customer.
- 17. Each of the three largest IOUs should conduct the <u>initial</u> two RAM auctions per year beginning no later than 90 days after the last RAM tariff filed by advice letter pursuant to this order is effective; the three IOU should hold RAM auctions simultaneously; and subsequent simultaneous auctions should be held no later than every 180 days thereafter.
- 39. For application toward RAM total program capacity caps, electricity sold to the IOU under either full buy/sell or excess sales should be measured by using the selling project's

433949

 $<sup>{\</sup>color{red} {1 \over 2}}$  Recommended additions are  ${\color{red} {underlined}}$  and recommended deletions are shown with  ${\color{red} {strikethrough}}$ .

rated capacity minus a measurement or an estimate of customer load entire rated generating capacity (also referred to as installed or nameplate generating capacity).

#### **ORDERING PARAGRAPHS**

1.c. The tariff shall be consistent with the directions stated in this decision, and summarized in Appendix A. These directions include, but are not limited to: per project (transaction) is 20 megawatts and less; rate determination is by use of the renewable auction mechanism; program cap of 1,000 megawatts, allocated to the three electrical corporations; no more, and no less, than 25% 20% of the allocation offered in the initial auction; unsubscribed capacity (or subscribed capacity that drops out) is added to the next available auction; tariff is a must-take obligation by the electrical corporation with respect to winning bidders for all projects in a product category below the simplified preapproval threshold up to the maximum allocated capacity; bids are not negotiable with respect to bid price, terms or conditions; bidders must show within the bid that the project complies with adopted project viability criteria; electricity products eligible for purchase via this tariff are firm, non-firm peaking and non-firm non-peaking; selection of winning bids is by price (least expensive selected first); prices are subject to a simplified preapproval threshold of market price referent times 1.5 for purposes of simplified Tier 1 advice letter review contracts with prices at or above the simplified preapproval threshold are subject to other Commission process, such as Tier 3 advice letter review or application; rates are paid on the basis of all-in energy rates by time of delivery; capacity applicable to the total statewide maximum capacity in turn allocated to each utility shall, for transactions pursuant to either the full buy/sell or excess sales options, use the project's rated capacity minus a measurement or an estimate of customer load entire rated generating capacity (also called the installed or nameplate capacity); a seller eligible to subscribe under this tariff need not be a retail customer of the electrical corporation, and the project need not be located on property owned or under the control of the retail customer; and a seller eligible to subscribe under this tariff need not be a qualifying facility under federal law.

### **CERTIFICATE OF SERVICE**

I hereby certify that I have this day served a copy of "COMMENTS OF THE
DIVISION OF RATEPAYER ADVOCATES ON THE PROPOSED DECISION
ADOPTING THE RENEWABLE AUCTION MECHANISM" to the official service
list in <b>R.08-08-009</b> by using the following service:
[ X ] E-Mail Service: sending the entire document as an attachment to all known
parties of record who provided electronic mail addresses.
[ ] U.S. Mail Service: mailing by first-class mail with postage prepaid to all
known parties of record who did not provide electronic mail addresses.
Executed on September 27, 2010 at San Francisco, California.
/s/ REBECCA ROJO
Rebecca Rojo

### SERVICE LIST R.08-08-009

chris.leveriza@glacialenergy.vi

jnelson@psrec.coop tam.hunt@gmail.com

tdarton@pilotpowergroup.com wplaxico@axiopower.com AMSmith@SempraUtilities.com

jhamrin@resource-solutions.org

lwisland@ucsusa.org martinhomec@gmail.com

nrader@igc.org

rhardy@hardyenergy.com

ted@fitcoalition.com

dgulino@ridgewoodpower.com

rresch@seia.org

keith.mccrea@sablaw.com jim\_p\_white@transcanada.com

garson\_knapp@fpl.com jordan.white@pacificorp.com dsaul@pacificsolar.net GouletCA@email.laccd.edu kelly.cauvel@build-laccd.org eisenblh@email.laccd.edu

rkeen@manatt.com npedersen@hanmor.com

mmazur@3PhasesRenewables.com

susan.munves@smgov.net

ej\_wright@oxy.com klatt@energyattorney.com

douglass@energyattorney.com

pssed@adelphia.net cathy.karlstad@sce.com mike.montoya@sce.com rkmoore@gswater.com kswitzer@gswater.com cponds@ci.chula-vista.ca.us mary@solutionsforutilities.com

fortlieb@sandiego.gov

GBass@SempraSolutions.com

DAKing@SempraGeneration.com

jleslie@luce.com

KHassan@SempraUtilities.com

TRoberts@SempraUtilities.com CentralFiles@SempraUtilities.com liddell@energyattorney.com cadowney@cadowneylaw.com

marcie.milner@shell.com

GloriaB@anzaelectric.org kerry.eden@ci.corona.ca.us

phil@reesechambers.com
Joe.Langenberg@gmail.com

dorth@krcd.org

ek@a-klaw.com

pepper@cleanpowermarkets.com

bruce.foster@sce.com elaine.duncan@verizon.com

cec@cpuc.ca.gov

nao@cpuc.ca.gov jeanne.sole@sfgov.org

marcel@turn.org matthew@turn.org

arno@recurrentenergy.com

ecl8@pge.com nes@a-klaw.com

abrowning@votesolar.org bcragg@goodinmacbride.com

jsqueri@gmssr.com

jarmstrong@goodinmacbride.com mday@goodinmacbride.com stevegreenwald@dwt.com

shong@goodinmacbride.com todd.edmister@bingham.com

dhuard@manatt.com jkarp@winston.com edwardoneill@dwt.com jeffgray@dwt.com crmd@pge.com ssmyers@att.net

gpetlin@3degreesinc.com

mrh2@pge.com bill@fitcoalition.com ralf1241a@cs.com wbooth@booth-law.com kowalewskia@calpine.com

info@calseia.org

rick\_noger@praxair.com jpross@sungevity.com

jody\_london\_consulting@earthlink.net

Laurie.Mazer@bp.com gmorris@emf.net

ndesnoo@ci.berkeley.ca.us clyde.murley@comcast.net tomb@crossborderenergy.com dweisz@marinenergyauthority.org

anders.glader@elpower.com janreid@coastecon.com michaelboyd@sbcglobal.net

johnrredding@earthlink.net

jweil@aglet.org

jsanders@caiso.com

kdusel@navigantconsulting.com jdalessi@navigantconsulting.com

cmkehrein@ems-ca.com dgeis@dolphingroup.org dcarroll@downeybrand.com

davidb@cwo.com

jmcfarland@treasurer.ca.gov jim.metropulos@sierraclub.org blaising@braunlegal.com sgp@eslawfirm.com abb@eslawfirm.com

Christine@consciousventuresgroup.com

kmills@cfbf.com wwester@smud.org jcolive@bpa.gov

dkk@eslawfirm.com

Tom.Elgie@powerex.com freesa@thirdplanetwind.com Andrew.Luscz@glacialenergy.com

acitrin@prosoliana.com

WBlattner@SempraUtilities.com dtownley@infiniacorp.com

elvine@lbl.gov

HYao@SempraUtilities.com janice@strategenconsulting.com

jf@pointcarbon.com kmills@cfbf.com lsherman@orrick.com moxsen@calpine.com mpf@stateside.com

stephaniec@greenlining.org

ttutt@smud.org mrw@mrwassoc.com artrivera@comcast.net

CKebler@SempraGeneration.com cynthia.brady@constellation.com cynthia.brady@constellation.com Derek@AltaPowerGroup.com EGrizard@deweysquare.com pstoner@lgc.org
hans@recurrentenergy.com
imcgowan@3degreesinc.com
Jennifer.Barnes@Navigantconsulting.com
James.Stack@CityofPaloAlto.org
jna@speakeasy.org
judypau@dwt.com
Imitchell@hanmor.com

Melissa.Schary@sce.com mniroula@water.ca.gov nick.chaset@tesserasolar.com pblood@columbiaenergypartners.com pshaw@suntechamerica.com richard.chandler@bp.com

m.stout@meridianenergyusa.com

pletkarj@bv.com SEHC@pge.com

shess@edisonmission.com thomase.hobson@ge.com TCorr@SempraGlobal.com mpr-ca@coolearthsolar.com Harry.Singh@RBSSempra.com

r.raushenbush@comcast.net

jgorberg@lspower.com

Karen.Kochonies@MorganStanley.com Morgan.Hansen@MorganStanley.com nicole.fabri@clearenergybrokerage.com ron.cerniglia@directenergy.com

vsuravarapu@cera.com

tjaffe@energybusinessconsultants.com

cswoollums@midamerican.com abiecunasjp@bv.com

nblack@calbioenergy.com tcarlson@rrienergy.com echiang@elementmarkets.com jpittsjr@pcgconsultants.com jon.jacobs@paconsulting.com kjsimonsen@ems-ca.com jenine.schenk@apses.com

emello@sppc.com tdillard@sppc.com

jgreco@terra-genpower.com
Jeff.Newman@bth.ca.gov
ctorchia@chadbourne.com
fyanney@fulbright.com
Douglas@Idealab.com

vjw3@pge.com

fhall@solarelectricsolutions.com

jackmack@suesec.com case.admin@sce.com gary.allen@sce.com
george.wiltsee@sce.com
Joni.Templeton@sce.com
kswitzer@gswater.com
chad@cenergypower.com
rjgilleskie@san.rr.com

 ${\tt SNelson@SempraUtilities.com}$ 

farrellytc@earthlink.net

Jcox@fce.com

HRasool@SempraUtilities.com JWright@SempraUtilities.com DNiehaus@SempraUtilities.com CentralFiles@SempraUtilities.com

peter.pearson@bves.com csteen@bakerlaw.com rblee@bakerlaw.com chestonem@sharpsec.com john@deweygroup.com leichnitz@lumospower.com

michaelgilmore@inlandenergy.com

hanigan@encous.com
pfmoritzburke@gmail.com

janet.gagnon@solarworldusa.com

Jeff.Hirsch@DOE2.com

hal@rwitz.net

sue.mara@rtoadvisors.com mdjoseph@adamsbroadwell.com

paulfenn@local.org
Dan.adler@calcef.org
mramirez@sfwater.org
srovetti@sfwater.org
tburke@sfwater.org
norman.furuta@navy.mil

andre.devilbiss@recurrentenergy.com

dcover@esassoc.com

jim.howell@recurrentenergy.com luke.dunnington@recurrentenergy.com

mcarboy@signalhill.com nsuetake@turn.org

sam.maslin@recurrentenergy.com

snuller@ethree.com avege@firstwind.com

RegRelCPUCCases@pge.com

ELL5@pge.com
MGML@pge.com
jay2@pge.com
jsp5@pge.com
filings@a-klaw.com
mginsburg@orrick.com
CPUCCases@pge.com

spauker@wsgr.com
tjl@a-klaw.com
cmmw@pge.com
nxk2@pge.com
Eriks@ecoplexus.com
amartin@nextlight.com
fderosa@nextlight.com
jwoodruff@nextlight.com
jscancarelli@crowell.com
mchediak@bloomberg.net
rafi.hassan@sig.com
sdhilton@stoel.com

vidhyaprabhakaran@dwt.com tsolomon@winston.com bobgex@dwt.com

Diane.Fellman@nrgenergy.com

cem@newsdata.com sho@ogrady.us atk4@pge.com BXSZ@pge.com GXL2@pge.com MMCL@pge.com S2B9@pge.com rwalther@pacbell.net sahm@fitcoalition.com

ryan.heidari@endimensions.com wetstone@alamedamp.com

beth@beth411.com

kerry.hattevik@nrgenergy.com andy.vanhorn@vhcenergy.com sean.beatty@mirant.com barmackm@calpine.com JChamberlin@LSPower.com sbeserra@sbcglobal.net

timea.Zentai@navigantconsulting.com

masont@bv.com

phanschen@mofo.com

dietrichlaw2@earthlink.net
alex.kang@itron.com
ramonag@ebmud.com
bepstein@fablaw.com
ken.alex@doj.ca.gov
nellie.tong@us.kema.com
cpucdockets@keyesandfox.com

kfox@keyesandfox.com

cwooten@lumenxconsulting.com rschmidt@bartlewells.com gteigen@rcmdigesters.com mcmahon@solarmillennium.com sgallagher@stirlingenergy.com gtrobinson@lbl.gov Tiffany.Roberts@lao.ca.gov clu@cpuc.ca.gov ed.smeloff@sunpowercorp.com dseperas@calpine.com ctd@cpuc.ca.gov erasmussen@marinenergyauthority.org bsb@eslawfirm.com ciw@cpuc.ca.gov sara@solaralliance.org cte@eslawfirm.com dot@cpuc.ca.gov juliettea7@aol.com jjg@eslawfirm.com gtd@cpuc.ca.gov lynn@lmaconsulting.com Imh@eslawfirm.com jm3@cpuc.ca.gov tfaust@redwoodrenewables.com rroth@smud.org jzr@cpuc.ca.gov tim@marinemt.org mdeange@smud.org jp6@cpuc.ca.gov johnspilman@netzero.net vwood@smud.org jaa@cpuc.ca.gov ed.mainland@sierraclub.org hurlock@water.ca.gov jf2@cpuc.ca.gov keithwhite@earthlink.net Iterry@water.ca.gov jmh@cpuc.ca.gov karen@klindh.com wem@igc.org kar@cpuc.ca.gov kwh@cpuc.ca.gov eric.cherniss@gmail.com atrowbridge@daycartermurphy.com dsanchez@daycartermurphy.com shani@scvas.org lau@cpuc.ca.gov renee@gem-corp.com DocToxics@aol.com mpo@cpuc.ca.gov tom\_victorine@sjwater.com dbranchcomb@spi-ind.com mrl@cpuc.ca.gov jrobertpayne@gmail.com c.mentzel@cleanenergymaui.com mjs@cpuc.ca.gov davido@mid.org sas@a-klaw.com mjd@cpuc.ca.gov joyw@mid.org mpa@a-klaw.com mc3@cpuc.ca.gov brbarkovich@earthlink.net californiadockets@pacificorp.com sha@cpuc.ca.gov dgrandy@caonsitegen.com Tashiana.Wangler@PacifiCorp.com nlr@cpuc.ca.gov rmccann@umich.edu dws@r-c-s-inc.com nil@cpuc.ca.gov davidmorse9@gmail.com castille@landsenergy.com psd@cpuc.ca.gov tobinjmr@sbcglobal.net john\_dunn@transcanada.com rmm@cpuc.ca.gov saeed.farrokhpay@ferc.gov meredith\_lamey@transcanada.com rkn@cpuc.ca.gov e-recipient@caiso.com lisa.cherkas@powerex.com svn@cpuc.ca.gov dennis@ddecuir.com olga.beznosova@bctc.com sc1@cpuc.ca.gov rick@sierraecos.com MWT@cpuc.ca.gov tbo@cpuc.ca.gov david.oliver@navigantconsulting.com TRH@cpuc.ca.gov ys2@cpuc.ca.gov kenneth.swain@navigantconsulting.com AEG@cpuc.ca.gov Will.Brieger@doj.ca.gov cpucrulings@navigantconsulting.com CNL@cpuc.ca.gov claufenb@energy.state.ca.us Ipark@navigantconsulting.com DBP@cpuc.ca.gov cleni@energy.state.ca.us pmaxwell@navigantconsulting.com Igonzale@energy.state.ca.us hraitt@energy.state.ca.us tpomales@arb.ca.gov NB2@cpuc.ca.gov kzocchet@energy.state.ca.us amber@iepa.com SMK@cpuc.ca.gov mpryor@energy.state.ca.us mclaughlin@braunlegal.com jmcmahon@8760energy.com pdoughma@energy.state.ca.us danielle@ceert.org ab1@cpuc.ca.gov cleni@energy.state.ca.us varaninie@gtlaw.com as2@cpuc.ca.gov dvidaver@energy.state.ca.us jluckhardt@downeybrand.com ams@cpuc.ca.gov jwoodwar@energy.state.ca.us

aes@cpuc.ca.gov

bwm@cpuc.ca.gov

cjm@cpuc.ca.gov

pbarthol@energy.state.ca.us

rmiller@energy.state.ca.us

hcronin@water.ca.gov

bernardo@braunlegal.com

steveb@cwo.com

steven@iepa.com